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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,149	12/05/2001	John R. Schneider	1646A1	1918

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PPG INDUSTRIES, INC.
Intellectual Property Department
One PPG Place
Pittsburgh, PA 15272

EXAMINER

RAJGURU, UMAKANT K

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 05/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

Applicant(s)

Examiner

Group Art Unit

— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-50 is/are pending in the application.
- ☐ Of the above claim(s) 34-41 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-33 and 42-50 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
 - ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s) 2
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

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1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-33 and 42-50, drawn to a composition, classified in class 524, subclass 404.
 - II. Claims 34-38, drawn to a substrate, classified in class 428, subclass 191.
 - III. Claims 39 and 40, drawn to a method of applying, classified in class 427, subclass 109.
 - IV. Claim 41, drawn to a method of preparing, classified in class 264, subclass 109.

The inventions are distinct, each from the other because:

Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the process as claimed can be practiced with another materially different product such as a solution of an organic substance.

Inventions IV and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process as claimed can be used to make a materially different product such as a tube or a rod.

Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a material for molding and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Inventions III and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process as claimed can be practiced with another materially different product such as a flexible plastic film or woven cloth.

Inventions IV and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions.

Inventions IV and III are related as process of making and process of using the product. The use as claimed cannot be practiced with a materially different product. Since the product is not allowable, restriction is proper between said method of making and method of using. The product claim will be examined along with the elected invention (MPEP § 806.05(i)).

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

2. During a telephone conversation with Attorney Diane R. Meyers on Oct. 04, 2002 a provisional election was made with traverse to prosecute the invention of I, claims 1-33 and 42-50. Affirmation of this election must be made by applicant in replying to this Office action. Claims 34-41 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 is indefinite in reciting "organic particle" on line 1 since claim 6 (from which claim 12 depends) does not encompass any organic particles.

5. Applicant is advised that should claim 19 be found allowable, claim 50 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-7, 9, 13 and 15-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Stubbs et al (USP 5595578).

Stubbs discloses coated abrasives using polyurethane. Various abrasive particles are used in making the abrasives. Some of them are diamond, boron carbide, titanium carbide, silica, quartz, silicon nitrides etc (col. 7, lines 15-26). Size of these particles is 0.1 to 1500 micrometers (col. 7, lines 27-38).

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Above claims therefore lack novelty.

8. Claims 1-7, 9, 13, 15-27 and 30-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Samuelson (USP 4048765).

Samuelson discloses non-cellular polyurethane wheel made out of a composition comprising (a) 3-10 parts mica, (b) $\frac{1}{2}$ -10 parts molybdenum disulfide, (c) 20-90 parts abrasive grains and, (d) 100 parts polyurethane (col. 2, lines 1-11). Suitable abrasive grains include silicon carbide, aluminum carbide, diamonds, boron carbide etc (col. 6, line 64, to col. 7, line 2).

Above claims therefore lack novelty.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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10. Claims 1-7, 9-27, 29 and 42-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stubbs et al (USP 4048765).

Claims 1-7, 9-33 and 42-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Samuelson (USP 4048765).

Disclosures of these two patentees, presented earlier, prove that it would have been obvious to follow their teaching and arrive at above claimed invention.

Claims 10-12 compass alumina which is ground, unground, calcined and uncalcined. Stubbs and Samuelson are silent on these types of alumina. It is the examiner's position that since these types are known (see Monroe et al (USP 5611829) would be obvious to use any one of them in a composition for their better dispersibility characteristics. It is also obvious to prepare a coating in a solid form (i.e., powder) or in a liquid form as per requirements.

Claims 42-50 encompass certain limitations which are not specifically mentioned by either of the two references. Nonetheless since the claimed composition is disclosed by the references, it is reasonable to infer, unless proved otherwise, that the composition of either reference, inherently satisfies these limitations.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stubbs et al (USP 5595578) or Samuelson (USP 4048765) as applied to claim 1 above, and further in view of Diener et al (USP 5614250).

Stubbs and Samuelson fail to disclose the three types of silica of above claim 8.

Diener discloses coated fillers one of which is silica. In col. 4, lines 28-49, patentee mentions the types of silica (of instant claim 8).

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Therefore it would have been obvious to use any of the three types of silica in the respective composition of either Stubbs or Samuelson for better dispersibility.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to U.K. Rajguru whose telephone number is 703-308-3224. The examiner can normally be reached on Monday-Friday from 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 703-308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



U. K. Rajguru/mn
May 14, 2003



James J. Seidleck
Supervisory Patent Examiner
Technology Center 1700